

CDM Smith Comments on PRP documents:

Addendum 1 to the Data Gaps Sampling and Analysis Plan, Prepared by ARCADIS (August 2015)
Addendum 1 to the Quality Assurance Project Plan, Prepared by ARCADIS (August 2015)
Summary of VOC in Soil and Sediment Samples, Prepared by ARCADIS (August 26, 2015)
ARCADIS Response to Comments (August 26, 2015)

CDM Smith reviewed the Addendum 1 for the QAPP and SAP, together with the VOC summary and ARCADIS response to comments. The sampling locations presented in the SAP were reviewed to inventory what they plan to sample, and how it is consistent with the various meetings and discussions that have taken place.

General Comment:

It is noted that SAP figures 3a and 3b, and QAPP figures 2b and 2b, sampling locations do not correctly display the full sample label – the labels are missing digits. Using the Search function in Adobe Acrobat finds the numbers; using this approach, the samples that did not have labels displaying correctly were accounted for. It is requested that once the QAPP/SAP plans are approved, either the figures be repaired so that they are fully readable while opened in Acrobat, or hard copies be provided to the EPA, USACE, and CDM Smith for use during the field program.

Specific Comments:

- 1) **SAP Figures 3a and 3b and QAPP Figures 2a and 2b:** Two locations are designated SS-182 on the site plans; one of these should be SS-183 (DEP-34 and DEP-35).
- 2) **SAP Figures 3a and 3b and QAPP Figures 2a and 2b:** Samples SS-169 through SS-172 are west of MW-10, SS-69 and SS-13. These appear to be additional samples that ARCADIS referred to as “proposed by them/the group” and not EPA or DEP. These are acceptable.
- 3) **ARCADIS Response to Comments, August 26, 2015 – Response to Specific Comment 8:** ARCADIS has proposed SD-49 toward the landfill from previously sampled SS-164. EPA-requested sample SD-47 is further out from SS-164. If SD-49 is below standards, then ARCADIS would conclude that contamination further out (i.e. SS-164) is not from the landfill. Contingent samples SD-50 and SS-174, further in from SS-49, are proposed as contingency to further evaluate the spatial trend if necessary, and would only be analyzed if SS-49 has exceedances. We disagree with the advance conclusion that if there is a clean sample between SS-164 and the landfill, that this would define the limit of contamination from the landfill. It would tend to rule out that particular flow path, but there could be other flow paths that may have bypassed SS-49. Judging by **Table 3 and Figure 3b of the SAP**, ARCADIS is proposing similar logic along the sample transect SS-173, SD-48, SS-162, SD-46. Again, we disagree with this logic.
- 4) **Summary of VOC in Soil and Sediment Samples:** CDM Smith agrees with the PRP view on VOCs. There have been minimal hits so far, and they plan to delineate one area VOC (that is not delineated yet), comprised by previous samples POI-3 and SS-109. They don’t plan to delineate JB qualified values for methylene chloride and 1,4-DCB around SD-41. MeCl₂ is a common lab contaminant and both were found in the blank. CDM Smith agrees that no further VOC delineation is needed at SD-41, but raises this comment to the EPA for their decision.

- 5) **ARCADIS Response to Comments – Response to Specific Comment 6:** The August 26 ARCADIS letter states that deeper samples at the landfill perimeter and within the landfill will be collected on a contingent basis; if the shallower co-located sample has no exceedances the deeper sample will not be analyzed. It does not appear that this was discussed previously. This seems acceptable. If accepted by EPA, then the criterion for which parameters to analyze the contingent samples must be clear (i.e. if a contingent sample must be analyzed, analyze for all parameters). The August 17, 2015 letter from EPA accepts the general sampling depths proposed by ARCADIS – 0-1' bgs and 1-2' bgs at the perimeter; however, EPA stipulated that where VOCs are sampled, they would be collected from 0.5-1.0' and 1.0-1.5'. ARCADIS differs on the deeper VOC sample, stating it would be collected at 1.5-2.0'.
- 6) **SAP Section 2.1.2:** Within the landfill they will be drilling to the clay on site; they should use dual tube or discrete sampler if they go much deeper than the water table to make sure they get representative samples at depth.
- 7) **QAPP Worksheet #14/16 Project Tasks and Schedule:** This does not address the pore water sample that was aborted at the MW-13 location. The schedule appears to be comprehensive with this exception. Please clarify the Group's plan to collect an aqueous sample at this location.
- 8) **QAPP Worksheet 20 Field QC Summary:** No QA/QC is proposed for PCB congeners, except a field blank. Although only two samples, both from one location are proposed, it has been several months since this parameter has been analyzed and full QA/QC is recommended.